

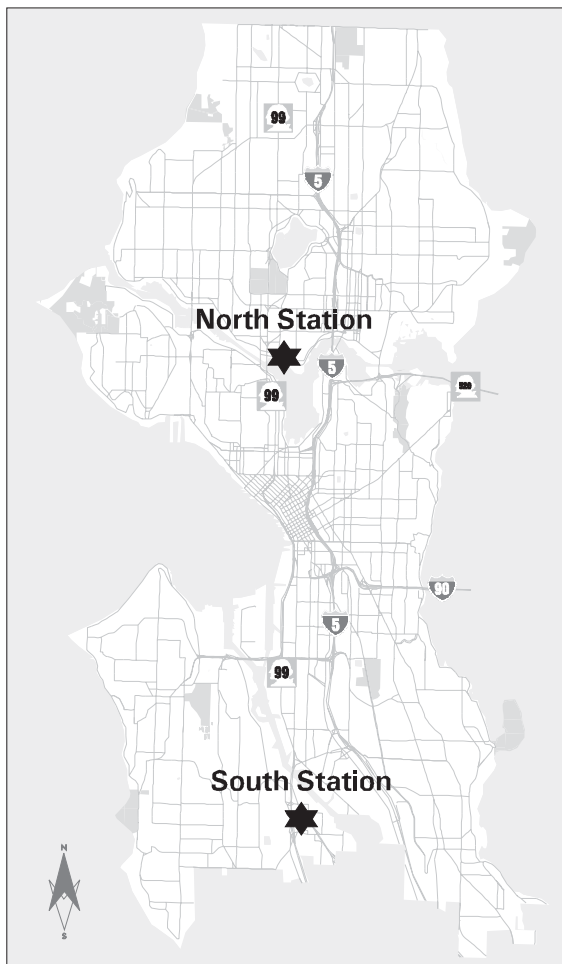
# **SPU - SOLID WASTE**

# Seattle Public Utilities Solid Waste Division North & South Recycling and Disposal Stations

## North Station:

- 1 Recycle & Disposal Building
- 2 Storage
- 3 Scale House
- 4 Fuel Tank
- 5 Crew Building

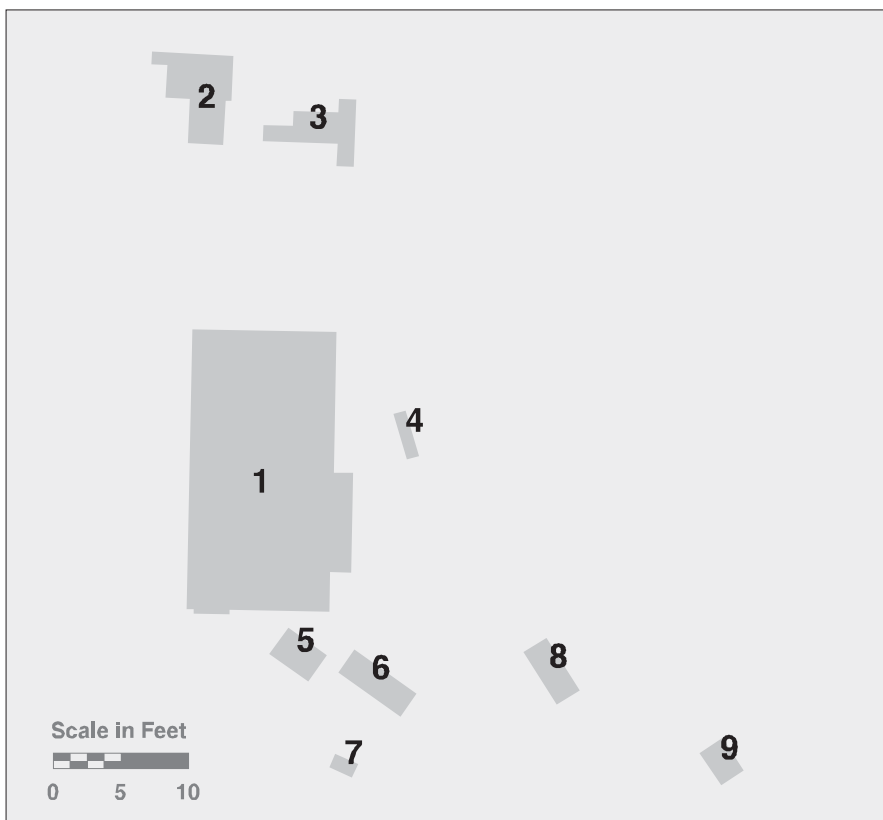
## City View



## North Station - 1350 N 34th St



## South Station - 8100 2nd Ave S



## South Station:

- 1 Recycle & Disposal Building
- 2 Household Hazardous Waste
- 3 Office Building
- 4 Storage
- 5 Storage
- 6 Crew Building
- 7 Scale House
- 8 Maintenance
- 9 Inspector's Building



## Overview of Facilities and Programs

Seattle Public Utilities (SPU) is responsible for the collection and disposal of solid waste generated within the City of Seattle. The City-owned infrastructure used to accomplish this task consists of two recycling and disposal stations, two household hazardous waste facilities, and a fleet of trucks and heavy equipment. In addition, the Solid Waste Capital Improvement Plan (CIP) supports post-closure projects on two landfills previously used by the City.

Seattle Public Utilities Capital Improvement Program (CIP) is the vehicle for upgrading and expanding Solid Waste facilities. The overriding goal of the CIP is to assure that the facilities are properly constructed and maintained, that customers are satisfied, and that waste diversion is improved while minimizing neighborhood impacts.

For 2004, the CIP is primarily funded through a line of credit while SPU identifies its long-term capital program financing demands. The Department is currently drafting a Solid Waste Facilities Master Plan, to develop recommendations for facility improvements to the City's solid waste management system. A final plan is expected to be complete later in 2004. Once the Facilities Master Plan is adopted by Council, the majority of the Solid Waste capital program will be funded through 30-year revenue bonds. Overhead costs for the CIP (such as rent and utilities) are currently budgeted in SPU's operating budget and then repaid as CIP expenditures are incurred.

## Highlights

- ◆ **New Facilities:** The Solid Waste CIP allocates approximately \$2.8 million in 2004 to begin implementation of the Solid Waste Facilities Master Plan, and \$2.2 million for property acquisition at the North Recycling and Disposal Station. The main focus in 2004 is preparation of an Environmental Impact Statement (EIS) as required by the State Environmental Policy Act. This environmental review is required before an option can be selected for implementation. Preferred options in the plan have identified the demand for additional property at both the existing transfer stations and for a new intermodal transfer station. A portion of the 2004 budget is spent evaluating the suitability of preferred properties, performing environmental assessments, and negotiating property acquisitions. In addition, some preliminary engineering of transfer station designs is performed for the EIS.
- ◆ **Rehabilitation and Heavy Equipment:** SPU allocates approximately \$4.7 million in 2004 for Recycling and Disposal Stations projects, heavy equipment replacement and upgrading, and Landfill Post-Closure Improvements (see the Recycling and Disposal Stations – Compactor Replacement, Heavy Equipment Purchases, and Midway Landfill Post-Closure Improvements projects). SPU and the Washington State Department of Transportation (WSDOT) are working together on the Midway Landfill Post-Closure Improvements project, which enters the design phase in 2004 if WSDOT obtains funding.

## Project Selection Process

Seattle Public Utilities used a comprehensive approach to develop the 2004-2009 Proposed Capital Improvement Program. The department encouraged wide staff participation in the process. Steps included the following:

**Project Identification:** In late 2001 and early 2002, staff throughout the Department took part in an effort to identify new CIP projects, and changes and adjustments to existing projects. The criteria used in identifying projects were the Department's goals of environmental stewardship, customer service, strategic technology implementation, neighborhood benefits, infrastructure maintenance demands, and meeting growing demand. A detailed list of new and existing projects was then compiled.

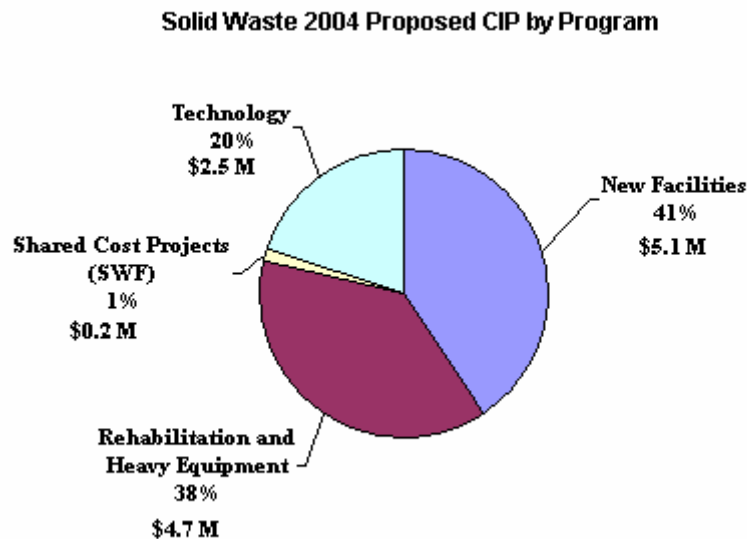
**Project Screening, Prioritization, and Selection:** Meetings were held with various sections throughout the Department to gain full understanding and consensus of project drivers, demands, and benefits. The full project list was compared to expected available funding based on estimated likely rate increases. The projects were then prioritized, and a decision was made not to carry forward some lower priority projects. Various alternatives were considered for other projects, where possible. During final screening in the Department's Asset Management Committee, the most cost effective approach was selected based on analyses of demand, risk, life cycle costs, and benefits.

**Anticipated Operation Expenses:** Detailed life cycle operational costs were evaluated as part of the Asset Management Committee review process. These costs were developed with input from operational staff. The financial costs and workload impacts were quantified and included in the 2003-2004 Operations and Maintenance budget.

**Project Budget and Workload Scheduling:** As a final step, detailed budget and workload estimates were prepared for the selected projects.

### Program Category Summaries

The Solid Waste CIP allocates \$12.5 million in 2004 (including Technology projects funded by the Solid Waste Fund). It is comprised of four program categories as summarized below. A detailed listing of all programs for the Solid Waste Capital Improvement Program follows this overview. Solid Waste-supported technology projects are shown grouped with other technology projects in the SPU Technology CIP section. The chart on the following page shows how Seattle Public Utilities' proposed Solid Waste CIP allocates funding to these program categories in 2004:



**New Facilities:** In 2004, \$2.9 million is allocated to implementation the Solid Waste Facilities Master Plan and \$2.2 million is allocated for property acquisition at the North Recycling and Disposal Station. The purpose of this program is to plan, design, and construct new facilities to enhance solid waste operations. SPU is in the process of developing a master plan for the Solid Waste system's long-term facility requirements.

**Rehabilitation and Heavy Equipment:** In 2004, \$4.7 million is allocated to the Rehabilitation and Heavy Equipment program. The purpose of this program is to design and construct projects to repair and/or upgrade solid waste facilities and replace aged heavy equipment.

**Shared Costs Projects:** This new program in the 2004-2009 Proposed CIP includes capital improvement projects that receive funding from multiple SPU funds. In 2004, the program includes \$170,000 from the Solid Waste Fund for Facility Improvements.

**Technology:** In 2004, \$2.5 million is allocated to the Technology program. The purpose of this program is to make use of recent technology advances to increase efficiency and productivity. Solid Waste-supported technology projects are shown grouped with other technology projects in the SPU Technology CIP section.

## **Anticipated Operating Expenses Associated with Capital Facilities Projects**

The Department has identified no impact to operations and maintenance costs for 2004. SPU will not be able to identify the operations and maintenance impacts for 2005-2009 until the Solid Waste Facilities Master Plan is completed.

## SPU - Solid Waste

### Project Summary

Program/Project	Project ID	LTD	2003	2004	2005	2006	2007	2008	2009	Total
<b>New Facilities</b>										
CIP Facilities Master Plan	C201006	293	500	0	0	0	0	0	0	793
Facilities Master Plan Implementation	C2NW001	0	0	2,850	6,012	12,861	38,788	41,655	34,557	136,723
Intermodal Facility	C2NW003	0	500	0	0	0	0	0	0	500
North Recycling and Disposal Station Property Acquisition	C2NW004	0	0	2,208	0	0	0	0	0	2,208
South Recycling and Disposal Station Property Acquisition	C201003	3	200	0	0	0	0	0	0	203
<b>New Facilities Total</b>		<b>296</b>	<b>1,200</b>	<b>5,058</b>	<b>6,012</b>	<b>12,861</b>	<b>38,788</b>	<b>41,655</b>	<b>34,557</b>	<b>140,427</b>
<b>Rehabilitation and Heavy Equipment</b>										
Heavy Equipment Purchases - Solid Waste	C201002	1,282	1,111	1,000	1,050	1,100	1,150	1,200	1,250	9,143
Midway Landfill Post-Closure Improvements	C2NW002	0	250	500	200	200	4,000	0	0	5,150
Recycling and Disposal Stations - Compactor Replacement	C201007	173	1,726	3,246	0	0	0	0	0	5,145
<b>Rehabilitation and Heavy Equipment Total</b>		<b>1,455</b>	<b>3,087</b>	<b>4,746</b>	<b>1,250</b>	<b>1,300</b>	<b>5,150</b>	<b>1,200</b>	<b>1,250</b>	<b>19,438</b>
<b>Shared Cost Projects (SWF)</b>										
Facility Improvements (Solid Waste Fund)	C502010	0	163	170	0	0	0	0	0	333
<b>Shared Cost Projects (SWF) Total</b>		<b>0</b>	<b>163</b>	<b>170</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>333</b>
<b>Department Total</b>		<b>1,751</b>	<b>4,450</b>	<b>9,974</b>	<b>7,262</b>	<b>14,161</b>	<b>43,938</b>	<b>42,855</b>	<b>35,807</b>	<b>160,198</b>

Note: Additional allocations for the SPU Solid Waste Fund are shown in the SPU - Technology section of this document.

*\*Amounts in thousands of dollars*

### Fund Source Summary

<b>Funding Source</b>	<b>LTD</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>Total</b>
SPU Solid Waste Fund	1,751	4,450	9,974	7,262	14,161	43,938	42,855	35,807	<b>160,198</b>
<b>Department Total</b>	<b>1,751</b>	<b>4,450</b>	<b>9,974</b>	<b>7,262</b>	<b>14,161</b>	<b>43,938</b>	<b>42,855</b>	<b>35,807</b>	<b>160,198</b>

Note: Additional allocations for the SPU Solid Waste Fund are shown in the SPU - Technology section of this document.

## SPU - Solid Waste

### CIP Facilities Master Plan

**Program:** New Facilities

**Start Date:** 3rd Quarter 2001

**Type:** New Facility

**End Date:** 4th Quarter 2003

**Project ID:** C201006

**Location:** Various

This project develops and establishes a Solid Waste CIP Facilities Master Plan to guide SPU towards the construction of facilities that provide the citizens of Seattle with sufficient recycling and solid waste services for the next 30 years. The project sets objectives and defines options for replacing or rehabilitating the City's solid waste transfer stations and household hazardous waste sheds; conducts cost and feasibility analyses of these options; and determines a preferred approach to implementation. Funding for implementation of the plan is provided through the Facilities Master Plan Implementation Project (C2NW001), Intermodal Facility (C2NW003), North Recycling and Disposal Station Property Acquisition (C2NW004), and South Recycling and Disposal Station Property Acquisition (C201003).

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
SPU Solid Waste Fund	293	500	0	0	0	0	0	0	793
O&M Costs (Savings)			0	0	0	0	0	0	0

### Facilities Master Plan Implementation

**Program:** New Facilities

**Start Date:** 1st Quarter 2004

**Type:** New Facility

**End Date:** 4th Quarter 2010

**Project ID:** C2NW001

**Location:** Various

This project implements the Solid Waste CIP Facilities Master Plan (C201006). The scope, schedule, and costs of proposed projects are further defined upon approval of the Solid Waste Facilities Master Plan and completion of a State Environmental Impact Statement (SEIS). The costs shown below include completion of a SEIS, permitting, property acquisition, design, construction, and facility equipment. Additional funding related to implementing the Master Plan is provided under Intermodal Facility (C2NW003), North Recycling and Disposal Station Property Acquisition (C2NW004), and South Recycling and Disposal Station Property Acquisition (C201003).

Planning and analysis of options is still underway and no preferred option has been selected. SPU has developed recommended options for consideration, but a final recommendation for implementation will not be approved until completion of an SEIS, which is scheduled for 2004. The funding shown here represents the costs of implementing a relatively complex and comprehensive option, with a total estimated implementation cost through 2010 of approximately \$144 million.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
SPU Solid Waste Fund	0	0	2,850	6,012	12,861	38,788	41,655	34,557	136,723
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

\*Amounts in thousands of dollars



## Facility Improvements (Solid Waste Fund)

**Program:** Shared Cost Projects (SWF) **Start Date:** 1st Quarter 2003  
**Type:** Improved Facility **End Date:** 4th Quarter 2004  
**Project ID:** C502010  
**Location:** 700 5TH AV

This project funds logistical support services for SPU including tenant improvements, office buildouts, and furniture. Additional funding is provided by Project C502010 in the Drainage and Wastewater CIP and Project C502010 in the Water CIP. The total estimated cost of the project is \$1.96 million.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
SPU Solid Waste Fund	0	163	170	0	0	0	0	0	333
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

## Heavy Equipment Purchases - Solid Waste

**Program:** Rehabilitation and Heavy Equipment **Start Date:** Ongoing  
**Type:** Rehabilitation or Restoration **End Date:** Ongoing  
**Project ID:** C201002  
**Location:** N/A

This project replaces heavy equipment (such as loaders, bulldozers, road tractors and trailers) used at SPU's North and South Recycling and Disposal Stations. These pieces of equipment have reached the end of their useful lives. The new equipment must meet new environmental standards. The project also funds retrofitting of existing equipment to meet these new standards.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
SPU Solid Waste Fund	1,282	1,111	1,000	1,050	1,100	1,150	1,200	1,250	9,143
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

## Intermodal Facility

**Program:** New Facilities **Start Date:** 2nd Quarter 2003  
**Type:** New Facility **End Date:** 4th Quarter 2003  
**Project ID:** C2NW003  
**Location:** TBD

This project funds a portion of the permitting, design, and construction costs of the development of a new intermodal solid waste transfer facility. This project supplements funding provided under the Solid Waste Facilities Master Plan Implementation Project (C2NW001). The scope, schedule, and costs of constructing the new Intermodal Solid Waste Transfer Facility have been further defined as the draft of the CIP Facilities Master Plan (C201006) has been completed.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
SPU Solid Waste Fund	0	500	0	0	0	0	0	0	500
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

\*Amounts in thousands of dollars

## SPU - Solid Waste

### Midway Landfill Post-Closure Improvements

**Program:** Rehabilitation and Heavy Equipment **Start Date:** 1st Quarter 2003  
**Type:** Rehabilitation or Restoration **End Date:** 4th Quarter 2007  
**Project ID:** C2NW002  
**Location:** Along Interstate 5, Kent WA

This project funds post-closure operations, maintenance, and capital improvements at the Midway Landfill, a 50-acre former gravel quarry located in Kent, Washington, operated by SPU from 1966 to 1983. The Washington State Department of Transportation (WSDOT) is undertaking a project costing over \$900 million project to widen Interstate 5 by two lanes on the west side. This state project impacts landfill post-closure infrastructure that is currently in place on the WSDOT right-of-way. Project costs below are estimated, and are impacted by negotiations underway between SPU and WSDOT. SPU and WSDOT are working together on this project, which enters the construction phase in 2007, if WSDOT obtains funding for its highway project.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
SPU Solid Waste Fund	0	250	500	200	200	4,000	0	0	5,150
O&M Costs (Savings)			0	0	0	0	0	0	0

### North Recycling and Disposal Station Property Acquisition

**Program:** New Facilities **Start Date:** 1st Quarter 2004  
**Type:** New Facility **End Date:** 4th Quarter 2004  
**Project ID:** C2NW004  
**Location:** 3500 INTERLAKE AV N

This project funds SPU's acquisition of additional land at the North Recycling and Disposal Station (NRDS) site. The Solid Waste CIP Facilities Master Plan has identified a demand for acquiring additional property in order to provide space for the station office, employee facilities, parking, on-site access roads, and reuse and recycling facilities. Acquisition of the property is part of implementing the Solid Waste CIP Facilities Master Plan (see also project C2NW001).

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
SPU Solid Waste Fund	0	0	2,208	0	0	0	0	0	2,208
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

\*Amounts in thousands of dollars

## Recycling and Disposal Stations - Compactor Replacement

**Program:** Rehabilitation and Heavy Equipment

**Start Date:** 1st Quarter 2001

**Type:** Rehabilitation or Restoration

**End Date:** 4th Quarter 2004

**Project ID:** C201007

**Location:** Various

This project replaces garbage compactors at the recycling and disposal stations. The existing compactors are at the end of the typical industry standard of ten years for equipment life, and are no longer reliable for daily use. The compactors are used 10-12 hours per day, 363 days per year, in order to load the continuous stream of contract-collected and self-hauled waste into rail containers. This project includes design and installation of new waste compactors at both recycling and disposal stations, with the development of back-up emergency loading facilities. The new compactors also provide data-logging capability.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
SPU Solid Waste Fund	173	1,726	3,246	0	0	0	0	0	5,145
O&M Costs (Savings)			0	0	0	0	0	0	0

## South Recycling and Disposal Station Property Acquisition

**Program:** New Facilities

**Start Date:** 3rd Quarter 2001

**Type:** New Facility

**End Date:** 4th Quarter 2003

**Project ID:** C201003

**Location:** 8100 2ND AV S

This project funds SPU's acquisition of additional land at the South Recycling and Disposal Station (SRDS) site from the City's Fleets & Facilities Department (FFD), in order to facilitate the construction and operation of a new solid waste handling facility at the site as part of the Solid Waste Facilities Master Plan. The City owns two strips of land adjacent to the SRDS. One is a thirty-foot strip along the entire south end of the site and the other is a sixty-foot vacated right-of-way along the southern portion of the west side of the site. These were obtained by the City more than thirty years ago.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
SPU Solid Waste Fund	3	200	0	0	0	0	0	0	203
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

\*Amounts in thousands of dollars